

CLIMATOLOGICAL DATA FOR MARCH, 1911.

DISTRICT NO. 8, TEXAS AND THE RIO GRANDE VALLEY.

BERNARD BUNNEMEYER, District Editor.

GENERAL SUMMARY.

The weather was much warmer and slightly wetter than normal for March, and the general conditions were very favorable for outdoor work. The amount of sunshine was normal or slightly below. There were but comparatively few days on which the daily mean temperatures were below the average, and there was a conspicuous absence of frosts. While the precipitation averaged slightly greater than normal, there was a general deficiency in the northern portions of the district from the Rio Pecos to the headwaters of the Sabine. It was, however, very favorably distributed. Good rains occurred in sections where most needed, while the deficiency extended over counties that had a large excess in February. The number of days with 0.01 inch or more of precipitation averaged four in Colorado and New Mexico and five in Texas. Precipitation occurred at intervals throughout the month, but the wettest period extended from the 17th to the 26th.

The greatest and least monthly amounts in Colorado were 3.32 inches at Platoro and 0.02 inch at Manassa; in New Mexico, 2.13 inches at Rosedale and 0.00 inch at Liston; and in Texas, 7.90 inches at Port Arthur and a trace at Seymour.

Snow occurred on several days over the upper reaches of the Rio Grande and Rio Pecos watersheds, and the amounts were heavier than during the corresponding month of the previous year. There was very little snow farther south, and practically none in the southern portions of New Mexico or in Texas. The heaviest monthly snowfall in Colorado was 25 inches at Platoro, and in New Mexico 29.5 inches at Harveys Upper Ranch.

TEMPERATURE.

The monthly mean temperature averaged 4.1° above normal in Colorado; 3.2° above in New Mexico; and 3.8° above in Texas. The excess covered the entire district and was greatest in the north-central portion, the region of least precipitation, where it exceeded 6° . The month opened with a cold spell which gave the lowest temperatures of the month. In the northern portion of the district the ground was covered with snow, but it disappeared quickly. An unusually warm period occurred from the 7th to the 12th, which was followed by a cool spell of short duration. The remainder of the month was warm with but little interruption. The average diurnal range of temperature varied from 9° on the upper Texas coast to about 33° in the northern portions of the district.

The highest and lowest temperatures reported were: In Colorado, 66° at Garnett on the 31st and -19° at Hermit on the 1st; in New Mexico, 92° at Carlsbad on the 9th and -10° at Red River Canyon on the 1st; and in Texas, 101° at Tilden on the 10th and 22° at Plainview on the

1st. The local monthly means ranged from 30° to 39.9° in Colorado; from 35.2° to 59.8° in New Mexico; and from 53.2° to 72.8° in Texas.

PRECIPITATION.

The precipitation over the Rio Grande watershed exceeded the normal, but the average for the entire drainage area, 1.10 inches, was only about 55 per cent of the amount reported for February. The excess over the long stretch south of El Paso averaged 0.63 inch, while north of that station it averaged only 0.25 inch. The greatest monthly precipitation in the watershed was 3.32 inches at Platoro, Colo., and the least 0.02 inch at Manassa, Colo.

The Rio Pecos watershed received less moisture than usual at this season, except over the lower portions south of Carlsbad, N. Mex., where the amounts exceeded the normal. The average for the watershed was 0.59 inch, which is only about one-third of the amount reported for February. The greatest monthly amount was 2.03 inches at Harveys Upper Ranch, N. Mex. There was no precipitation at Liston, N. Mex. Most of the precipitation over the upper reaches of the Rio Pecos and Rio Grande was in the form of snow.

The precipitation over the Texas watersheds compares very favorably with the amounts reported for February, and good rains occurred over those portions of the drainage areas where most needed. There was a marked increase over the watersheds of the Nueces, San Antonio, Guadalupe, Lavaca, Neches, and coastal plains, and a decrease over those of the Colorado, Brazos, Trinity, and Sabine. The decrease was due chiefly to a large deficit over the upper reaches of these watersheds. The greatest monthly precipitation was 7.9 inches at Port Arthur in the coastal plains and the least a trace at Seymour in the upper Brazos Valley. The following are the average monthly amounts in inches for the various watersheds: Nueces, 2.83; San Antonio, 3.74; Guadalupe, 3.81; Lavaca, 3.71; Colorado, 1.64; Brazos, 1.76; Trinity, 2.66; Neches, 4.02; Sabine, 2.57; and coastal plains, 2.98.

RIVER CONDITIONS.

The Rio Grande had a good flow during the month, which was due not only to the fact that the precipitation over this watershed exceeded the normal, but also because the warm weather melted the snow in the mountains and largely increased the run-off. The flow of the Rio Pecos was similarly affected, although the precipitation over this watershed was less than normal. Both streams will need good spring rains to make up for the run-off from too early melting of the stored snow.

The volume of water carried by the Texas streams averaged greater than during the preceding month. The Colorado and Trinity, however, were somewhat lower in

their upper portions, and the Brazos was lower in its middle portion. In general, the flow of the Brazos and western streams averaged about normal, while that of the eastern streams, comprising the Trinity, Neches, and Sabine, was less than normal.

SNOWFALL IN THE MOUNTAINS.

The warm weather during the month caused considerable melting of snow, and little, if any, was added to the stored depth. However, in some of the mountain districts of the upper Rio Grande watershed the depths on the ground at the close of the month were greater than during the corresponding period of the previous year. The following extracts from the reports of Weather Bureau officials furnish special information on the snowfall conditions in the Rio Grande and Rio Pecos watersheds:

Colorado.—Over the Rio Grande watershed a deficiency was noted for the month, but a moderate excess occurred in Saguache County, a region draining into San Luis Lakes. The month was warmer than normal, and there was considerable melting, but the run-off due to high temperatures was much less than during the corresponding month of last year. Comparing the depth on the ground at the end of the month with the depth on the corresponding date last year, the report makes a favorable showing, the depth being 17 inches against 12 inches last year.—*F. H. Brandenburg, District Forecaster.*

New Mexico.—The precipitation of March averaged slightly above the normal for the Territory, due to a considerable excess in the Rio Grande Valley and westward. Little, if any, snow was added to the stored depth. On the contrary, the warmth of the month largely dissipated the snow over the southern mountains and at all of the lower levels of the northern mountains, causing high water in the irrigation streams too early for long-continued flow. The late flow, therefore, will generally be light, unless maintained by good rains in the spring and early summer. The soil is generally well filled with moisture and gives promise of a successful year. Unusual rains occurred over much of the Rio Grande watershed and considerable snow over the northern parts, but warm weather has melted most of the snow, except over the higher northern mountains, causing high water too early.

Except along the main range, very light precipitation occurred over the northeast watershed, and the stored depth has decreased. Good spring rains will be needed to maintain the flow. Much the same con-

dition exists over the Pecos and southeast watershed, for little snow remains except at the headwaters of the Pecos and Gallinas. The soil of the eastern districts is generally well filled with moisture, and the stream flow is good.—*C. E. Linney, Section Director.*

MISCELLANEOUS.

Gallinas Planting Station.—The depth of the snow was from 2 to 4 feet at the 10,000-foot level at the close of the month, but it has melted on nearly all slopes below the 9,000-foot level.

Glorieta Ranch.—All fruit was safe at the close of the month.

Harveys Upper Ranch.—There was much snow in the timber on the north sides of the mountains and in the canyons at the close of the month, but it had disappeared on the south sides of the mountains.

Knowles.—The season so far has been favorable, but the soil is not wet to a great depth. All live stock wintered well.

Rosedale.—The weather during the month was very favorable. Snow has drifted deep on the mountains, and the outlook for a spring supply of water is good.

Big Springs.—The prospects are splendid for a good crop.

Bowie.—The frost on the morning of the 2d did no damage.

Marathon.—Fruit trees are in full bloom and the native trees are leafing.

Meria.—Tree blossoms were killed by the frost of the 2d and 3d. A severe duststorm occurred on the 11th.

Plainview.—Some fruit was killed on the 27th.

Seymour.—The month was threatening and windy, but very dry.

Stamford.—A severe sandstorm occurred on the 11th.

Sutherland Springs.—Vegetation is much further advanced than at this time in 1910. There was not so much wind as during last March.

TABLE 1.—Climatological data for March, 1911. District No. 8, Texas and Rio Grande Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.	
				Mean.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeted.									
Colorado.																						
Blanca.	Costilla.	7,865	2	35.7	.....	62	31	-5	1	50	0.12	.....	0.08	T.	3	11	20	0	sw.	Dr. L. C. Audrain.	
Cumbres.	Conejos.	10,015	4	.....	+ 4.8	66	31	6	27	50	.04	-0.22	.04	.99	23.0	7	15	13	3	sw.	Mrs. Ida M. Lively.
Garnett.	Costilla.	7,576	18	37.8	+ 4.8	66	31	-19	1	50	1.49	.....	.04	.04	0	1	8	20	3	sw.	Chas. Spesler.
Hermit.	Hinsdale.	9,843	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.41	22.3	7	10	3	18	sw.	Marion Mason.	
La Veta Pass.	Costilla.	9,000	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.34	7.4	3	15	15	1	w.	Marine D. Wright.	
Mamasa.	Conejos.	7,700	5	37.3	.....	64	30	-1	1	47	.02	.....	.02	.01	1	14	10	7	sw.	J. B. Chapman.	
Platoro.	do.	9,675	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.16	25.0	6	13	7	11	sw.	Walter R. Hook.	
Saguache.	Saguache.	7,740	19	39.9	+ 5.1	65	29	10	2	42	.63	+	.43	.26	2.6	4	13	4	14	nw.	Eugene Williams.	
San Luis.	Costilla.	7,794	20	37.7	+ 3.2	65	31	-4	1	46	.35	.....	.39	.14	T.	5	11	17	3	sw.	P. B. Albright.
Wagon Wheel Gap Experiment Station.	Mineral.	9,235	.....	30.0	+ 3.2	50	31	1	1	38	1.18	.....	.07	.47	14.0	8	16	7	8	n.	U. S. Weather Bureau.
New Mexico.																						
Agricultural College.	Dona Ana.	3,863	48	56.4	+ 2.9	83	10	30	12	47	.60	+	.31	.46	.0	2	10	20	1	sw.	N. M. Agricultural College.	
Alamogordo (near).	Otero.	4,338	10	58.8	+ 4.7	91	12	25	16	50	.62	+	.13	.32	.0	6	11	14	6	s.	Charles Sutton.	
Alamogordo.	do.	4,320	235	.0	3
Alamos Ranch.	Sandoval.	7,800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.71	.....	5	18	6	7	sw.	Harold H. Brooks.	
Albuquerque.	Bernalillo.	5,000	3542	+	.20	.21	0	5	19	8	w.	Pitt Ross, C. E.
Ancho.	Lincoln.	6,112	25631	0	2
Artesia.	Eddy.	3,350	4	57.0	.....	90	9	31	17	48	.56	.....	.30	0	3	17	7	7	sw.	Agent E. P. & S. W. R. R.	
Aspen Grove Ranch.	Rio Arriba.	9,000	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.90	.....	.47	13.9	8	18	2	sw.	Will Benson.
Bateman's Ranch.	do.	8,900	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.02	.....	.70	21.0	7	16	8	w.	Junius D. Maupin.
Bluewater.	Valencia.	6,732	9	43.5	.....	71	30	17	15	48	.52	.....	.27	T.	7	7	11	13	4	w.	John W. Bateman.
Boaz.	Chaves.	4,154	2	53.6	.....	85	10	24	2	51	.21	.....	.21	.0	1	13	14	4	se.	Bluewater Development Co.	
Capitan.	Lincoln.	6,348	20604	0	2	2	22	2	w.	D. C. Savage.
Carlsbad.	Eddy.	3,120	16	59.8	+ 2.7	92	9	33	1	52	.50	+	.07	.36	0	4	20	3	8	se.	Agent E. P. & S. W. R. R.	
Carrizozo.	Lincoln.	5,429	3	54.2	.....	74	29	38	12	30	.40	.....	.25	0	2	18	7	6	sw.	U. S. Reclamation Service.	
Carson Park.	Taos.	7,6508550	2	3	28	0	3	se.	Agent E. P. & S. W. R. R.
Chama.	Rio Arriba.	7,851	12	35.8	+ 1.6	63	31	5	17	40	1.53	.....	.91	.84	17.0	5	21	8	2	sw.	Frank C. Johnson.
Cloudcroft.	Otero.	8,650	8	41.1	.....	62	30	17	18	37	.85	.....	.32	3.0	5	14	2	15	5	s.	Agent E. P. & S. W. R. R.
Corona.	Lincoln.	6,666	2	.....	.....	72	31	27	10	.....	.99	.....	.81	4.0	3	19	7	5	sw.	Do.	
Coyote.	do.	5,800	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.17	0	4	21	3	7	w.	Teofilo Vilji.	
Cundiyoo.	Santa Fe.	6,880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.20	.....	.01	1	15	9	7	w.	Erk & Westerman.
Demonstration Farm.	San Miguel.	6,800	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.15	.....	.15	1.2	1	1	1	sw.	Agent E. P. & S. W. R. R.
Duran.	Torrance.	6,272	28550	2	3	28	0	3	se.	Boyd Williams.
Elk (near).	Chaves.	7,400	118543	0	6	22	6	3	w.	Agent E. P. & S. W. R. R.
Escondido.	Otero.	4,014	2	.....	.....	85	8	.....	.....	.....	1.38	.....	.43	0	6	22	6	3	sw.	Richard Pohl.	
Espanola.	Rio Arriba.	5,590	13	47.24	+ 3.5	76	9	14	1	46 ^b	.10	-	.34	10	0	1	17	10	4	s.	Linus L. Shields.	
Estancia.	Torrance.	6,140	6	42.8	.....	88	19	16	1	40	.56	.....	.19	0	4	16	12	3	e.	J. W. Mosley.	
Fort Stanton.	Lincoln.	6,231	33	48.0	+ 3.9	77	10	20	15	44	.80	-	.01	.50	T.	4	18	11	2	sw.	Guss Weiss.	
Fort Sumner.	Guadalupe.	3,960	3	53.0	.....	82	10	24	1	47	.45	.....	.30	0	3	27	1	3	s.	P. A. Turnbull.	
Gallinas.	Lincoln.	6,635	24840	0	2	13	9	9	w.	Wm. P. Kell.
Gallinas Planting Sta.	San Miguel.	7,500	4	41.4	.....	69	29	-4	1	54	.72	.....	.27	3.2	3	12	14	5	w.	N. M. Normal University.	
Harvey's Upper Ranch.	Socorro.	5,700	2	1.5956	3.0	4	16	10	5	se.	Charles M. Crossman.
Hillsboro.	San Miguel.	5,224	13	2.0353	29.5	10	18	9	4	sw.	Simon B. Warner.
Hodges.	Taos.	8,484	28888	4.0	2	19	6	6	nw.	Dr. F. I. Givens.
Hondo Reservoir.	Chaves.	3,904	2	54.8	.....	83	29	27	2	52	.81	.....	.48	0	3	10	10	2	2	se.	Austin Porter.
Hope.	Eddy.	4,000	38548	0	3	10	10	2	se.	U. S. Reclamation Service.
Jemez Springs.	Sandoval.	6,100	1	45.4	.....	69	31	20	1	34	.75	.....	.31	0	5	16	7	8	s.	A. W. Board.	
Known (near).	Eddy.	4,300	5	55.2	.....	87	8	27	1	46	.46	.....	.23	0	5	16	9	6	sw.	Linus L. Shields.	
Laguna.	Valencia.	5,840	6	46.8 ^a	.....	75	31	23	2	38	1.53	.....	.76	0	3	14	12	3	sw.	J. W. Mosley.	
Lagunita.	Guadalupe.	4,500	6	50.0	.....	90	11	22	1	43	.32	.....	.18	0	3	14	11	6	w.	Guss Weiss.	
Lake Valley.	Sierra.	5,412	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.63	.....	.83	0	4	23	0	sw.	P. A. Turnbull.
Las Vegas.	San Miguel.	6,384	24	44.0	+ 2.1	70	20	0	1	47	.18	-	.42	0	1.3	4	17	11	3	sw.	W. M. Nelson.	
Liston.	Chaves.	5,000	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.00	.....	.00	0	21	7	3	sw.	Agent E. P. & S. W. R. R.
Los Lunas (near).	Valencia.	4,900	21	50.8	+ 3.8	80	29	26	12	47	.55	+	.12	.39	0	4	12	15	4	w.	Richard Pohl.	
Magdalena.	Socorro.	6,557	6	46.4	.....	73	31	20	12	48	1.39	.....	.77	T.	3	15	15	1	w.	Wm. P. Fender.	
Mineral Hill.	San Miguel.	7,050	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.30	.....	.30	1	7	23	1	sw.	W. M. Nelson.
Monterey.	Otero.	4,436	2	73	30	12	1	41	.814625	0	3	20	7	4	w.	Agent E. P. & S. W. R. R.
Mountainair.	Torrance.	6,547	9	45.4	83	30	12	1	41	.812929	1	8	21	8	2	sw.	Mrs. John W. Corbet.
Newman.	Otero.	3,988	3	.....	.....	85	31	.....	.....	.....	1.24	.....	.69	0	4	8	16	7	3	w.	Agent E. P. & S. W. R. R.
Noria.	Dona Ana.	4,114	2	.....	.....	86	31	.....	.....	.....	.80	.....	.30	0	4	13	12	6	sw.	Do.	
Orange.	Otero.	5,000	4	.....	.....	86	9	.....	.....	.....	.69	.....	.32	0	3	21	4	6	sw.	Jas. Brownfield, Jr.	
Ororrande.	Lincoln.	4,171	2	.....	.....	86	9	.....	.....	.....	1.24	.....	.17	0	4	13	12	6	sw.	Agent E. P. & S. W. R. R.	
Oscuro.	Eddy.	5,016	2	.....	.....	87	17	8	2	45	1.45	+	1.38	1.21	0	4	19	8	5	sw.	Eugene F. Jones.
Otis.	Santa Fe.	3,100	2	.....	.....	87	20	33	1	45	1.72	+	1.33	.77	0	4	20	6	5	sw.	A. M. Hove.
Otto.	Santa Fe.	6,200	2	.....	.....	76	30														

TABLE 1.—Climatological data for March, 1911. District No. 8—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unadjusted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.			
<i>New Mexico—Contd.</i>																				
Truchas.	Rio Arriba.	7,935	2	56.6	66	30†	3	4	49	0.30	0.30	1	12	17	2	sw.	Ignacio Cordova.
Tularosa.	Otero.	4,436	3	56.6	.....	79	9†	35	13†	38	.78	.....	.28	0.0	7	18	3	10	Irby L. Fairless.
Vaughn.	Guadalupe.	5,952	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agent E. P. & S. W. R. R.
Virsylvia.	Taos.	7,500	1	39.0	.....	60	15†	4	1	28	.....	.....	.....	.....	.....	.....	.....	.....	Dr. I. N. Woodman.
Winsors.	San Miguel.	8,200	13	35.8	+ 1.9	62	31	— 2	1	50	.99	— 0.26	.28	2.0	5	11	7	13	Henry D. Winsor.	
<i>Texas.</i>																			U. S. Weather Bureau.	
Abilene.	Taylor.	1,738	26	60.8	+ 5.9	94	10	26	1	41	.91	— .47	.31	.0	7	9	8	14	s.	
Albany.	Shackelford.	1,429	17	58.6	+ 2.2	98	8	25	1	55	1.52	+ .32	.58	0.0	4	18	3	10	N. L. Bartholomew.	
Alvin §.	Brazoria.	49	13	66.4	.....	88	7†	43	2	29	5.11	+ 2.12	3.26	0.0	3	16	6	9	Alvin Japanese Nursery.
Anahuac §.	Chambers.	23	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. H. Collins.	
Antelope.	Jack.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chas. C. Hawkins.	
Austin.	Travis.	593	55	64.0	+ 3.1	88	9†	37	2	35	1.70	— .71	.63	0.0	2	18	12	1	A. Deussen.	
Ballinger.	Runnels.	1,637	15	61.4	+ 3.4	97	10	30	2	44	.43	— .54	.25	0.0	2	12	13	6	E. M. Eubank.	
Barstow.	Ward.	2,573	4	61.4	.....	98	9	30	17	56	1.37	.....	1.15	0.0	2	19	8	4	Lee F. Freeman.
Bay City.	Matacoba.	53	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. C. Quereau.	
Beaumont.	Jefferson.	29	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Bender.	
Beeville.	Bee.	225	15	68.6	+ 2.4	95	9	42	1	31	2.34	+ .39	.80	0.0	6	10	4	17	L. E. Dickey.	
Big Springs.	Howard.	2,396	13	60.8	.....	95	9	29	1	45	.43	— .35	.23	0.0	5	15	9	7	B. Reagan.
Blanco.	Blanco.	1,350	15	61.8	+ 3.6	90	9†	33	2	40	2.13	+ .35	.60	0.0	7	13	4	14	R. C. Crist.	
Boerne.	Kendall.	1,412	19	66.0	+ 6.5	95	10	43	1	32	5.45	+ 3.70	3.84	0.0	5	8	16	4	F. W. Schweppe.	
Booth.	Fort Bend.	81	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. R. Booth.	
Bowie.	Montague.	1,113	16	62.3	+ 3.9	98	9	27	2	43	.37	— 1.84	.21	0.0	2	19	8	4	Craig Anderson.	
Brady.	Palo Pinto.	1,500	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. W. Virling, Jr.	
Brazoria.	Brazoria.	25	22	68.6	+ 5.3	86	7†	43	2	31	4.73	+ 2.01	2.50	0.0	4	23	5	5	Mrs. M. A. Stevens.	
Brazos.	Washington.	801	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Robt. E. Boyett.	
Brenham.	Wise.	350	26	64.8	+ 1.8	91	9†	37	2	30	3.30	+ .58	1.60	0.0	6	12	1	18	Mrs. B. F. Sloan.	
Bridgeport.	Nueces.	754	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Claude Strange.	
Brighton.	Cameron.	12	18	67.9	+ 1.8	85	22	44	1	31	2.83	+ 1.64	1.45	0.0	7	12	6	2	G. H. Ritter.	
Brownsville.	Brown.	38	47	70.6	+ 2.1	86	22	49	3	24	1.78	+ .51	.91	0.0	12	6	7	18	U. S. Weather Bureau.	
Brownwood.	Milam.	1,342	19	60.4	+ 3.0	99	9	29	2	42	1.71	+ .15	.65	0.0	7	14	12	5	Mrs. Pearl Smith.	
Cameron.	Polk.	3	16	63.5	.....	93	9	33	2	47	1.84	.....	.72	0.0	9	22	5	4	J. E. Watts.
Carmona.	Claytonville.	330	3	65.2	.....	95	8	36	3†	43	3.72	.....	2.05	0.0	7	16	5	16	M. S. Spitzer.
Clifton.	Fisher.	2,100	16	59.5	+ 5.0	92	9	28	1†	45	.64	— .58	.22	0.0	4	6	19	6	Wm. Lanius.	
Coleman.	Bosque.	671	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. M. Jones.	
College Station.	Coleman.	1,710	17	62.2	+ 3.9	95	9†	30	1	47	.75	— .57	.45	0.0	2	11	14	6	J. E. Stevens.	
Colorado.	Brazos.	308	21	67.2	+ 6.8	92	8†	36	2	37	3.05	+ .54	1.53	0.0	9	17	11	3	Prof. G. S. Fraps.	
Columbia.	Mitchell.	2,066	17	58.0	+ 3.3	95	9	27	1†	52	.72	— .09	.27	0.0	5	11	11	3	R. M. Webb.	
Columbus.	Brazoria.	34	22	66.6	+ 3.3	88	7†	43	2	28	4.50	+ 1.57	2.10	0.0	4	8	12	11	R. B. Loggins.	
Corpus Christi.	Colorado.	206	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Sophie Bridge.	
Corisicana.	Nueces.	20	24	67.4	+ 3.0	83	9	45	1	19	2.64	+ .79	1.29	0.0	8	8	10	13	U. S. Weather Bureau.	
Encinal.	Navarro.	445	22	61.2	+ 2.5	90	10	32	2	37	2.87	+ .06	.77	0.0	8	16	4	11	D. H. Winn.	
Frockett.	Houston.	350	7	64.8	.....	91	10	33	2	38	4.56	.....	2.90	0.0	6	16	10	5	A. M. Rencher.
Cuero.	De Witt.	177	21	71.0	+ 6.5	96	9	40	1	42	3.41	+ 2.39	1.30	0.0	6	8	1	22	H. R. Froese.	
Dallas.	Dallas.	466	22	62.0	+ 5.4	98	10	31	2†	47	2.19	— 1.55	.91	0.0	6	19	9	12	G. A. Eisenlohr.	
Danevang.	Wharton.	145	15	68.0	+ 4.1	88	19	40	2	33	3.21	+ 3.55	2.80	0.0	4	22	1	8	H. P. Hermansen.	
Decatur.	Wise.	1,047	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ft. W. & D. C. Ry.	
Del Rio.	Valverde.	952	5	66.8	+ 5.1	95	10	38	1	39	1.59	— .09	.51	0.0	9	10	14	7	se.	
Devine.	Medina.	653	1	68.5	.....	96	9	41	1	38	3.32	.....	1.28	0.0	6	6	11	14	M. A. Keller.
Dialville.	Cherokee.	575	7	64.0	.....	90	11	33	2	38	3.45	.....	1.70	0.0	3	14	11	6	J. M. B. McKnight.
Dilliey.	Erie.	569	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John W. Miller.	
Dublin.	Erath.	1,466	15	60.8	+ 2.7	96	11	30	1	37	2.79	+ 1.42	1.26	0.0	6	9	11	11	Jno. O. Shafter.	
Duval.	Travis.	820	22	64.7	+ 2.1	89	3†	35	2	37	1.94	— 1.10	.85	0.0	5	11	6	14	J. C. Edgar.	
Eagle Pass.	Maverick.	800	34	70.0	+ 4.6	96	11	46	28*	36	2.23	+ 1.11	1.25	0.0	5	11	10	10	Charles Tarver.	
Edna.	Jackson.	71	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. L. Faires.	
El Paso.	El Paso.	3,763	32	59.8	+ 3.9	82	10	40	2	36	.43	+ .05	.25	0.0	4	12	16	3	w.	
Encinal.	La Salle.	558	3	68.2	.....	99	10	44	1	41	2.18	— .18	1.15	0.0	4	10	9	12	U. S. Weather Bureau.
Fairland.	Burnet.	1,000	23	64.8	+ 5.3	98	11	34	1	42	2.06	— .50	.75	0.0	5	11	15	5	H. C. Braden.	
Falfurrias.	Start.	.....	3	70.8	.....	98	9†	44	1†	45	.93	.....	.29	0.0	5	13	13	5	R. L. Bush.
Flatonia.	Fayette.	465	3	66.3	.....	92	9†	37	2	30	5.45	.....	2.86	0.0	6	9	6	16	W. L. Gardner.
Flint §.	Smith.	483	1	62.8	.....	91	11	32	2	39	2.80	.....	.84	0.0	7	15	6	10	Fred W. Laux.
Fort Clark.	Kinney.	1,050	40	65.8	+ 2.7	93	7†	40	1	38	2.06	+ .93	.82	0.0	6	15	10	6	F. C. C. Carter.	
Fort McIntosh.	Webb.	460	43	72.8	+ 4.3	98	9†	44	1	38	2.27	+ 1.29	.92	0.0	6	12	4	15	Post Hospital.	
Fort Stockton.	Pecos.	3,060	14	62.6	+ 4.6	93	8†	34	1	39	1.20	+ .58	.65	0.0	5	9	19	3	H. B. Butz.	
Fort Worth.	Tarrant.	670	16	63.3	+ 6.7	100	9	34	1	39	1.87	+ .11	.14	0.0	6	13	12	6	U. S. Weather Bureau.	
Fredericksburg.	Gillespie.	1,742	22	62.2	+ 2.5	90	9	33	1†	41	2.35	+ .70	.72	0.0	6	8	13	10	Arthur Striegler.	
Gainesville.	Cooke.	738	21	61.9	+ 6.4	98	9	32	1	44	.88	— 2.23	.49	0.0	4	12	6	1	J. L. Hickson.	
Galveston.	Galveston.	69	40	66.1	+ 3.8	76	7	48	2	15	3.88	+ .98	.27	0.0	6	13	12	6	U. S. Weather Bureau.	
Gatesville.	Coryell.	795	7	63.0	.....	94	9	31	2	41	2.55	.....	.90	0.0	5	16	15	0	John Ryan.
Georgetown.	Williamson.	750	16	62.0	+ .6	93	9	33	2	45	1.33	— .90	.53	0.0	9	17	7			

TABLE 1.—Climatological data for March, 1911. District No. 8—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.					Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unadjusted.	Number of rainy days.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
Texas—Continued.																				
Lagrange.	Fayette.	276	1								4.25		2.06	0.0	7	16	2	13	se.	August Hermes.
Lamesa.	Dawson.	2,500	1								.71		.67	0	2				S. D. Austin.	
Lampasas.	Lampasas.	1,026	19	63.0	+ 3.7	97	8†	30	2	49	1.17	- .59	.46	0	4	13	5	13	s.	Mrs. K. I. Webber.
La Parra.	Cameron.	38	9								1.44		.55	0	4				Jno. G. Kenedy.	
Laureles Ranch.	Nueces.	20	11								1.07	- .78	.50	0	3				Matt Cody.	
Liberty.	Liberty.	38	7	67.2		91	7	40	17	39	3.98		2.10	0	3	11	12	8	Mrs. Fannie Sneed.	
Llano.	Llano.	1,040	20	65.2	+ 4.8	96	9†	34	20	40	1.14	- .88	.08	0	3	23	5	3	E. W. Torrence.	
Llano Grande.	Hidalgo.	86	3	70.6		93	7†	46	1	82	2.99		2.00	0	5	6	18	7	M. D. Wardlow.	
Long Lake.	Anderson.	229	6								3.88		2.60	0	4	11	1	19	Geo. W. Ellis.	
Longview.	Gregg.	336	25	61.8	+ 3.3	90	10	33	2	35	2.22	- 2.13	.90	0	4	22	0		C. A. Propst.	
Lufkin.	Angelina.	325	4	65.1		90	8	38	3	38	6.10		1.95	0	6	19	2	10	T. A. King.	
Luling.	Caldwell.	418	22	64.8	+ 2.5	90	9	37	2	32	6.34	+ 4.73	3.08	0	8	11	10	10	John Carter.	
McGregor.	McLennan.	713	1								2.55		.80	0	6	15	7	9	W. H. Whitley.	
Marathon.	Brewster.	4,043	1	58.2		89	9	28	1	36	1.96		1.20	T	7	13	8	10	Rev. A. P. Willis.	
Marble Falls.	Burnet.	771	3								1.76		.75	0	6				J. J. Faubion.	
Maria.	Presidio.																	R. K. Colquitt.		
Marshall.	Harrison.	375	2	62.6		90	9†	31	2	39	2.61		.96	0	7	2	22	7	Lee Scott.	
Matagorda.	Matagorda.	12	1								2.40		2.00	0	4	23	2	6	W. E. McNabb.	
Mexia.	Limestone.	537	7	61.0		90	8†	32	2†	41	2.24		.62	0	7	7	7	17	Miss Josephine Newman.	
Midland.	Midland.																	W. H. Neib.		
Mision.	Hidalgo.	140	1	70.3		98	7†	49	2	82	1.88		.80	0	11	4	21	6	L. H. Romig.	
Mont Belvieu §.	Chambers.	65	1								4.23		2.40	0	7	12	9	10	A. R. Shearer.	
Mountain View.	Pecos.	2,900	1								1.51		.72	0	6				Lucius W. Gosselin.	
Mount Blanco.	Crosby.	2,750	22	55.8	+ 4.2	90	9	24	1	48	.15	- .48	.15	0	1	11	3	17	H. C. Smith.	
Nacogdoches.	Nacogdoches.	271	12	61.7	+ 1.0	92	11	36	3	39	3.88	+ .07	2.40	0	4	8	12	5	Miss Mary Hofmann.	
New Braunfels.	Comal.	720	22	64.1	+ 1.7	90	9†	37	2	34	5.50	+ 3.82	3.87	0	5	9	17	5	J. Glecke.	
Palestine.	Anderson.	510	29	62.9	+ 4.4	90	10	34	2	32	4.65	+ 1.18	2.26	0	5	12	10	9	U. S. Weather Bureau.	
Panter.	Hood.	1,000	22								2.33	+ .27	.73	0	6				E. H. Snider.	
Pearall.	Frio.	629	1								2.53		.58	0	6				Ernest De Vilbiss.	
Pierce.	Wharton.	102	5	65.6		87	8†	35	2	35	3.33	- .03	1.42	0	4	7	11	13	R. B. Pointer.	
Plainview.	Hale.	3,370	15	58.2	+ 1.6	88	9†	22	1	49	.43	- .02	.29	0	3	17	9	5	J. F. Sander.	
Port Arthur.	Jefferson.										7.90		3.17	0	5	26	5		Griffing Bros. Co.	
Port Lavaca.	Calhoun.	20	10	68.9	+ 3.5	88	7	42	1	27	3.08	+ 1.42	1.86	0	5	11	12	8	J. H. Blackford.	
Post City.	Garza.	2,700	1								.49		.52	0	11	4	15	12	se.	
Raymondville.	Cameron.										1.77		.52	0	11	12	8		Lindsay Waters.	
Ricardo.	Nueces.	57	2	70.1		96	10	46	1	33	1.80		.40	0	8	13	9	9	Mrs. C. W. Higdon.	
Riverside.	Walker.	169	7								4.68		1.70	0	4	16	0	16	H. D. Pearce.	
Robert Lee.	Coke.	1,860	12	59.8	+ 1.9	94	9	30	1	45	1.81	+ .06	.44	0	5	18	6	7	D. W. Bellamy.	
Rockland.	Tyler.	136	7								5.79		2.50	0	6	14	5	12	Mrs. G. B. Grewe.	
Rockport.	Aransas.	12	10	65.7		76	6†	42	1	22	3.57	- .75	1.60	0	5	12	14	5	W. F. M. Ross.	
Rossville.	Atascosa.	558	4	66.2		94	12	39	1†	49	3.73		1.30	0	5	12	12	7	Reiffert & Frobose.	
Runge.	Karnes.	308	16								3.88		.98	0	6				Jas. Johnston.	
Sabinal.	Uvalde.	964	7	67.5		94	9†	40	1	36	2.66		.80	0	7	5	5	21	L. M. Crockett.	
Salado.	Bell.										1.47		.60	0	4	12	1	18	Sam Crowther.	
San Angelo.	Tom Green.	1,847	20	63.4	+ 5.0	97	11	36	1	45	.88	- .12	.40	0	3	17	8	6	U. S. Weather Bureau.	
San Antonio.	Bexar.	701	26	66.0	+ 3.9	92	9	39	1	34	2.72	+ 1.04	1.01	0	7	8	11	12	F. A. Wilson.	
San Augustine.	San Augustine.	360	2	63.8		90	10	36	3	41	3.84		1.78	0	7	12	12	J. B. McAllen.		
San Juanito.	Hidalgo.										2.09		.89	0	8	3	6	22	se.	
San Marcos.	Hays.	558	18	65.4	+ 3.0	90	10	36	2	34	3.40	+ 1.49	1.88	0	5	10	0	21	Miss L. C. Ford.	
San Saba.	San Saba.	1,712	10	62.2	+ .8	97	9	29	2†	48	1.50	- .24	.61	0	6	20	8	3	Jas. Burns.	
Santa Gertrudes.	Nueces.										.78	- 1.09	.42	0	3				J. B. Wright, Jr.	
Sealy.	Austin.	201									2.28		.98	0	6	10	7	14	O. H. Albert.	
Seymour.	Baylor.	1,320	5								T.		T.	0	0	15	1	16	S. C. Lee.	
Somerville.	Burleson.	251	2	67.5		94	9†	39	1	33	3.20		2.00	0	3				W. A. Dolan.	
Sonora.	Sutton.	2,200	8															Mike Murphy.		
Stamfords §.	Jones.			56.7		86	9	28	1	36	.62		.18	0	5	18	8	5	T. A. Williams.	
Sugarland.	Fort Bend.	79	13			91	9	42	1†	38	4.80		2.30	0	3	12	5	14	Cunningham Sugar Co.	
Sutherland Springs §.	Wilson.	1	68.4			92	9†	42	1†	38	2.95		1.75	0	6	12	2	17	W. A. Clark.	
Taylor.	Williamson.	583	10	63.6	+ 3.9	93	9	35	2	40	1.90	- .72	.52	0	8	12	7	12	U. S. Weather Bureau.	
Temple.	Bell.	630	21	63.1	+ 4.1	90	9	35	2	35	2.28	- .18	.74	0	8	11	18	2	W. Goodrich Jones.	
Theodore.	Winkler.										.80		.67	0	3				W. H. Gibbs.	
Thurber.	Erath.										1.50		.54	0	5				J. K. Ball.	
Tilden.	McMullan.			57.0		101	10	40	15	45	3.26		1.25	0	9	5	6	20	Wm. Kuykendall.	
Tivoli.	Refugio.			1							2.68		1.53	0	4	6	19	6	W. H. Gisler.	
Uvalde.	Uvalde.	937	3	68.2		95	11	40	1	38	2.23		.73	0	5	23	5	5	F. M. Getzendaner.	
Valley Junction.	Robertson.	289	11								2.30	+ .34	.90	0	5	18	0	13	T. M. Williams.	
Victoria.	Victoria.	187	12	68.7	+ 3.1	93	8†	41	1	33	3.02	+ 1.09	1.12	0	4	8	0	23	C. C. Zirjacks.	
Waco.	McLennan.	424	22	61.0	+ 1.2	92	9	32	2	38	2.46	- .93	1.10	0	5	13	1	17	E. H. Hall.	
Waxahachie.	Ellis.	556	14	61.4	+ 2.8	97	8†	30	2†	47	2.84	+ .12	1.75	0	6	11	10	10	C. D. Longserre.	
Weatherford.	Parker.	864	22	59.9	+ 2.7	94	9†	30	2	39	1.78	+ .61	.89	0	6	22	4	5	Miss J. Stickfort.	
Wharton.	Wharton.	105	9	68.1		90	7	40	1	35	2.51		1.00	0	6	12	1	18	Mrs. F. M. Hughs.	
Wills Point.	Van Zandt.	524	6			92	10†				2.66		.84	0	4	12	9	10	W. W. Gibbard.	
Zapata.	Zapata.	300	2															A. P. Spohn.		

* b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

** Precipitation included in that of the next measurement.

† Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

‡ Also on other dates.

§ Separate dates of falls not recorded.

|| Data are from standard instruments not supplied by the U. S. Weather Bureau.

¶ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

** Estimated by observer.

† Precipitation for the 24 hours ending on the morning when it is measured.

|| Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for March, 1911. District No. 8, Texas and Rio Grande Valley.*

Stations.	Watershed.	Day of month.																														Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Colorado.</i>																																	
Blanca.	Rio Grande.				T.	0.08																											0.12
Cumbres.	do.				0.91	.77	0.09																									3.17	
Garnett.	do.																																04
Hermit.	do.				0.17	.41	.35																									1.49	
La Veta Pass.	do.																																.58
Manassa.	do.																																.02
Platoro.	do.																																3.32
Saguache.	do.																																.63
San Luis.	do.																																.35
Wagon Wheel Gap Experiment Station.	do.																																1.18
<i>New Mexico.</i>																																	
Agricultural College Alamogordo (near).	Rio Grande.	0.08																															.60
Alamogordo.	do.																																.62
Alamos Ranch.	do.																																.45
Albuquerque.	do.																																.71
Ancho.	do.																																.42
Artesia.	do.																																.56
Aspen Grove Ranch Batemans Ranch.	Rio Grande.																																1.90
Bluewater.	do.																																2.02
Boaz.	do.																																.52
Capitan.	do.																																.21
Carlsbad.	do.																																.50
Carizozo.	Rio Grande.																																.40
Carson Park.	do.																																1.53
Chama.	do.																																.85
Cloudcroft.	Pecos.	.05																															.99
Corona.	do.																																.51
Coyote.	Rio Grande.																																.20
Cundijo.	do.																																.15
Demonstration Farm.	Pecos.																																.85
Duran.	do.																																.88
Elk.	do.																																.10
Escondido.	Rio Grande.	.38																															1.38
Espanola.	do.																																.56
Estancia.	do.																																.56
Fort Stanton.	Pecos.	.00																															.80
Fort Sumner.	do.																																.45
Gallinas.	do.																																.48
Gallinas Planting Station.	do.																																.72
Glorieta Ranch.	Rio Grande.																																1.59
Harveys Upper Ranch.	Pecos.																																2.03
Hillsboro.	Rio Grande.																																.88
Hodges.	do.																																.81
Hondo Reservoir.	Pecos.																																.32
Hope.	do.																																.76
Jemez Springs.	Rio Grande.																																.46
Knowles.	Pecos.																																.53
Laguna.	Rio Grande.																																.32
Lagunita.	Pecos.																																.63
Lake Valley.	Rio Grande.																																.16
Las Vegas.	Pecos.																																.00
Liston.	do.																																.55
Los Lunas (near).	Rio Grande.																																1.39
Magdalena.	do.																																.30
Mineral Hill.	Pecos.																																.46
Monterey.	Rio Grande.																																.81
Mountainair.	do.																																1.55
Newman.	do.																																.58
Noria.	do.																																1.24
Orogrande.	do.																																.20
Oscuro.	Pecos.																																.69
Otis.	Rio Grande.																																.23
Pastura.	Pecos.																																.47
Placitas (near).	Rio Grande.																																1.01
Red River Canyon.	do.																																.12
Rincon.	do.																																

TABLE 2.—*Daily precipitation for March, 1911. District No. 8—Continued.*

TABLE 2.—*Daily precipitation for March, 1911. District No. 8—Continued.*

TABLE 3.—*Maximum and minimum temperatures for March, 1911. District No. 8, Texas and Rio Grande Valley.*

Colorado.				New Mexico.												Texas.												
Date.	Garnett.	San Luis.	Agricultural College.	Carlsbad.		Fort Stanton.		Mountain-air.		Rosedale.		Roswell.		Santa Fe.		Santa Rosa.		Abilene.		Big Springs.		Brownsville.		Corpus Christi.				
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.				
1...	44	16	41	-4	62	42	57	33	37	21	38	12	46	28	59	30	39	10	48	10	53	28	61	20	63	52	58	45
2...	45	13	43	7	70	42	67	34	55	25	48	20	50	27	62	28	45	20	54	23	62	31	67	32	67	49	60	45
3...	47	17	46	13	74	43	76	40	60	30	53	32	56	32	72	33	51	27	63	38	76	46	77	44	72	49	63	58
4...	53	25	49	35	77	46	79	49	70	36	54	34	59	36	68	42	51	30	65	40	76	46	80	51	81	60	70	62
5...	52	24	47	34	75	54	84	47	65	40	53	32	56	42	81	46	52	39	69	40	77	59	84	55	81	65	76	65
6...	56	29	43	33	72	45	86	47	68	36	56	40	55	44	79	46	50	34	69	41	75	60	84	50	82	68	75	88
7...	54	20	48	29	75	36	85	43	65	31	60	28	63	32	78	36	55	30	66	37	85	58	85	50	84	68	79	88
8...	60	23	49	28	80	33	91	41	69	30	66	31	67	36	87	33	59	34	75	36	91	55	90	50	85	68	82	68
9...	60	35	55	32	80	34	92	40	75	33	70	34	68	46	89	39	61	36	77	43	94	64	95	50	84	68	83	69
10...	63	33	56	39	83	38	89	46	77	40	71	36	67	39	88	42	60	34	80	48	94	53	93	48	84	68	81	66
11...	47	27	53	27	67	39	87	54	75	46	64	42	59	37	76	48	46	31	69	46	65	84	60	82	68	79	69	
12...	49	24	44	25	68	30	74	48	62	37	52	24	52	26	64	36	45	25	63	30	69	46	82	33	61	76	88	63
13...	54	23	47	25	66	42	61	44	63	37	53	25	52	30	57	35	50	29	67	28	61	37	60	35	79	66	76	53
14...	56	13	55	18	71	39	66	41	52	30	60	28	59	32	67	39	52	29	65	27	62	46	61	44	80	60	69	59
15...	54	14	55	18	72	35	76	38	64	20	64	25	58	29	73	31	55	29	74	37	70	39	70	37	67	57	68	54
16...	59	17	54	24	74	45	75	36	62	26	68	30	62	36	73	34	58	31	68	42	72	43	75	42	76	53	69	55
17...	48	21	50	30	72	41	79	47	68	34	68	41	62	43	75	43	59	34	67	31	79	51	77	44	80	61	72	67
18...	51	28	50	28	75	48	74	40	67	29	61	28	61	36	65	36	57	33	74	34	51	43	72	42	80	68	77	64
19...	56	19	57	22	76	38	82	40	69	31	66	29	59	35	77	39	58	32	69	38	72	41	85	48	80	62	72	64
20...	60	18	50	25	65	47	76	49	66	36	52	34	54	35	67	42	53	31	62	44	74	45	79	53	78	63	74	66
21...	58	16	56	26	64	43	74	46	59	36	65	32	54	35	73	39	54	31	60	34	83	56	82	49	82	61	74	64
22...	49	28	51	28	68	40	64	51	64	39	55	32	48	31	58	44	45	36	63	35	73	57	71	54	86	68	77	64
23...	50	18	51	23	54	46	52	37	42	30	36	28	38	37	44	37	37	30	54	34	62	46	65	43	77	67	72	63
24...	56	22	53	25	57	35	56	41	38	29	56	28	45	26	58	38	50	28	64	36	64	48	56	43	71	66	66	58
25...	61	23	54	27	64	46	71	46	55	32	58	33	51	30	66	45	50	30	67	37	56	49	63	49	77	66	72	57
26...	42	17	45	18	71	41	78	51	56	37	57	36	56	37	73	44	50	27	66	42	71	47	76	44	77	64	76	61
27...	56	6	54	7	71	48	71	40	60	25	64	23	53	32	63	33	56	19	69	24	63	38	66	24	74	58	65	61
28...	61	28	60	29	76	44	83	41	62	38	67	37	65	38	79	37	61	32	68	43	76	49	77	41	76	52	71	52
29...	64	21	64	21	80	36	87	40	68	45	69	40	60	43	83	37	64	31	80	45	82	46	82	43	80	62	72	61
30...	53	22	64	25	81	41	86	44	71	38	73	39	70	48	80	38	67	34	79	41	74	49	83	44	83	68	74	68
31...	66	20	65	22	90	41	86	44	72	41	70	37	70	41	80	48	66	32	74	44	85	54	88	55	82	72	77	71
Mins.	54.3	21.2	51.9	23.5	71.6	41.2	76.3	43.2	62.5	33.6	58.6	31.3	57.5	35.2	71.4	38.6	53.5	29.9	67.0	36.5	73.3	48.2	76.2	45.4	78.5	62.6	72.9	62.0

Date.	Texas.																												
	Del Rio.		El Paso.		Fort McIntosh.		Fort Stockton.		Fort Worth.		Galveston.		Hallettsville.		Houston.		Lufkin.		Palestine.		Plainview.		San Antonio.		Haskell.* §§		Taylor.		
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.			
1....	56	38	60	40	70	44	60	34	50	34	68	50	49	41	55	46	65	43	42	36	46	22	49	39	60	28	48	37	
2....	66	46	69	40	64	50	70	38	57	34	58	48	61	40	63	43	65	40	60	34	65	25	67	39	80	29	61	35	
3....	73	48	71	47	75	50	83	45	75	45	62	57	69	52	69	51	75	38	72	44	64	31	68	47	80	37	73	42	
4....	76	54	76	52	78	69	83	48	80	57	72	62	80	61	81	61	82	51	76	56	70	34	74	59	82	42	73	59	
5....	80	64	73	57	87	66	85	54	76	63	72	65	78	66	79	63	81	65	79	65	81	44	79	62	77	46	78	62	
6....	83	65	72	51	95	65	83	54	80	65	75	67	85	69	83	68	80	66	78	67	86	67	84	55	80	66	86	64	
7....	88	64	75	48	96	64	82	49	90	66	76	68	86	68	90	68	88	66	86	66	80	43	85	64	92	56	86	64	
8....	94	60	81	46	96	89	93	54	94	59	75	75	87	66	88	64	90	65	89	64	87	38	87	60	96	55	90	64	
9....	93	64	81	50	98	65	93	54	100	67	73	67	89	68	88	64	89	63	88	63	92	64	97	58	93	65	90	60	
10....	95	64	82	48	98	64	93	54	99	60	74	67	89	65	88	65	90	61	91	60	94	41	91	55	97	58	93	60	
11....	91	64	69	53	97	65	89	55	90	63	75	67	87	67	87	65	89	60	88	62	79	49	90	64	65	55	87	63	
12....	84	64	70	42	96	63	73	45	77	52	76	68	76	69	81	67	80	62	72	56	65	34	77	56	62	44	72	57	
13....	70	55	64	46	80	61	63	38	65	40	75	62	73	55	76	57	74	47	65	45	56	28	72	52	67	37	69	46	
14....	63	53	69	44	74	60	66	49	61	47	67	53	70	52	75	45	58	47	70	34	60	60	55	68	58	50	70	43	
15....	79	54	70	47	76	54	72	35	70	46	71	56	74	52	75	47	70	44	73	47	61	34	74	55	74	38	72	43	
16....	76	50	76	50	81	50	78	39	73	38	65	57	76	47	69	49	72	48	70	42	70	31	74	48	83	40	74	42	
17....	90	58	74	52	88	60	84	51	76	53	70	63	82	62	75	55	77	48	74	51	74	30	77	67	57	41	76	52	
18....	71	55	73	51	86	67	78	44	60	51	73	59	67	57	80	59	80	68	64	55	64	30	70	55	75	42	68	53	
19....	82	54	76	48	84	60	86	55	73	47	69	60	76	55	71	59	70	55	71	57	76	35	74	55	77	42	67	53	
20....	72	57	68	51	77	61	77	54	76	47	70	63	77	57	79	57	68	52	76	51	72	39	74	59	89	44	75	50	
21....	82	58	66	50	87	65	78	48	79	58	71	63	78	63	76	58	79	52	78	57	76	44	77	57	77	47	76	56	
22....	83	61	70	42	87	69	73	48	76	60	70	63	78	65	78	64	75	61	72	61	67	49	82	62	66	54	80	63	
23....	67	48	52	41	84	66	63	40	69	51	68	60	68	66	67	60	68	59	66	53	52	38	70	61	68	45	89	58	
24....	59	47	57	40	73	54	54	40	67	48	63	57	68	57	65	55	71	45	61	46	61	40	65	55	67	45	82	51	
25....	62	50	65	48	66	56	65	48	58	51	71	60	68	56	74	57	65	56	58	50	62	39	61	51	77	48	57	52	
26....	82	52	70	45	84	57	77	48	76	53	74	63	80	58	82	60	81	59	80	56	65	38	82	57	76	46	80	56	
27....	68	49	72	46	81	52	75	37	63	41	69	62	62	56	78	48	63	44	64	64	25	66	49	83	35	88	56	44	
28....	79	45	74	51	84	46	82	43	80	48	71	60	76	46	79	52	78	43	79	47	62	41	78	44	81	36	82	42	
29....	91	52	78	54	93	56	88	49	82	45	70	62	80	52	80	58	80	42	78	45	75	35	84	54	76	31	80	47	
30....	94	58	81	53	96	67	83	55	74	55	74	67	82	64	80	60	75	48	72	55	69	39	80	62	86	45	74	61	
31....	92	68	80	57	94	71	91	55	86	49	76	68	87	69	86	63	78	55	80	58	73	41	84	69	82	49	84	58	
Mean	78.3	55.5	71.4	48.1	84.7	60.8	78.1	47.1	75.2	51.4	70.6	61.6	76.1	58.7	76.9	58.1	76.7	53.5	72.8	53.0	69.7	36.8	76.7	55.8	56.1	77.4	43.8	73.9	53.3

* Haskell substituted temporarily for Seymour.